

115W

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO. : 5,807,715  
DATED : September 15, 1998  
INVENTOR(S) : S.L. Morrison, Herzenberg, L.A. and Oi, V.T.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page, Item [54], and Column 1, lines 2 and 5,

Delete "LYMPHOCYTE" and replace with -- LYMPHOCYTIC --; after "IMMUNOGLOBULIN", add -- AND FRAGMENTS --.

Item [75], Inventors, delete "Scarsdale, N.Y." and replace with -- Los Angeles --; delete "Menlo Park" and replace with -- Mountain View --; delete "both" and replace with -- all --.

Item [56], in **References Cited**, after "Seno et al 1983 Nucleic", delete "Acid" and replace with -- Acids --; after "Research 11 (3)", delete ":", and replace with -- : --; and after "Dolby et al 1980 PNAS 77 (10)" add -- : --.

Column 1,

Line 16, add the paragraph -- The work described herein was supported in part by grants from the National Institutes of Health (NIH), including AI-00408, AI-08917, CA-04681, and CA-16858. The United States Government has certain rights in the invention. --

Line 19, delete "1."

Line 41, delete "2."

Line 61, after "functional", add -- , --; after "assembled", add -- , --.

Line 66, delete "mouse-" and replace with -- mouse: --.

Line 67, delete ":",

Column 3,

Line 26, delete "prepar" and replace with -- prepara --.

Line 32, delete "CDNA" and replace with -- cDNA --.

Column 4,

Line 45, delete "CDNA" and replace with -- cDNA --.

Line 52, delete "CDNA" and replace with -- cDNA --.

Line 59, delete "CDNA" and replace with -- cDNA --.

Line 65, delete "Joining" and replace with -- joining --.

Column 8,

Line 2, after "immunization", add -- , --.

Line 21, delete "VH" and replace with -- V<sub>H</sub> --.

Line 22, delete "Vκ" and replace with -- V<sub>κ</sub> --.

Line 24, delete "VH" and replace with -- V<sub>H</sub> --.

Line 29, delete "Vκ" and replace with -- V<sub>κ</sub> --.

Line 31, delete "Jκ" and replace with -- J<sub>κ</sub> --; delete "Cκ" and replace with -- C<sub>κ</sub> --.

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 5,807,715  
DATED : September 15, 1998  
INVENTOR(S) : S.L. Morrison, Herzenberg, L.A. and Oi, V.T.

Page 2 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 9,

Line 9, delete "Five" and replace with -- Fine --; delete "Chamicals" and replace with -- Chemicals --.

Line 19, delete "VH-VL" and replace with --  $V_H-V_L$  --.

Line 57, delete "H2L2" and replace with --  $H_2L_2$  --.

Line 67, delete "K" and replace with --  $K$  --; delete "antiodies" and replace with -- antibodies --.

Column 10,

Line 5, after "expected" add -- , --.

Line 10, delete "VH" and replace with --  $V_H$  --; delete "V $\kappa$ " and replace with --  $V_\kappa$  --.

Line 14, delete "mouse: human" and replace with -- mouse:human --.

Line 22, delete "VH" and replace with --  $V_H$  --; delete "V $\kappa$ " and replace with --  $V_\kappa$  --.

Line 36, delete "Mr" and replace with --  $M_r$  --.

Line 42, delete "Mr" and replace with --  $M_r$  --.

Line 54, delete "hybri-doma-" and replace with -- hybridoma --.

Column 11,

Line 5, delete "V $\kappa$ " and replace with --  $V_\kappa$  --.

Line 10, delete "mouse: human" and replace with -- mouse:human --.

Line 21, delete "use" and replace with -- used --.

Line 35, delete "IgG<sub>1</sub>, IgG<sub>2</sub>, IgG<sub>3</sub>, IgG<sub>4</sub>, rabbit IgG and mouse IgG<sub>3</sub>" and replace with -- IgG<sub>1</sub>, IgG<sub>2</sub>, IgG<sub>3</sub>, IgG<sub>4</sub>, rabbit IgG and mouse IgG<sub>3</sub> --.

Line 37, delete "(delta)" and replace with --  $\Delta$  --.

Line 41, delete "V $\kappa$ " and replace with --  $V_\kappa$  --.

Line 43, after "Ann" add -- . --.

Line 44, delete "V $\kappa$ " and replace with --  $V_\kappa$  --.

Line 60, delete "pure, >95%" and replace with -- pure (>95%) --.

Line 63, delete "mouse-human" and replace with -- mouse:human --.

Line 64, delete "IgG<sub>3</sub>" and replace with -- IgG<sub>3</sub> --.

Column 12,

Line 3, delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --.

Line 10, delete "affinity purified" and replace with -- affinity-purified --.

Line 22, delete "labelling" and replace with -- labeling --.

Line 26, delete "pp." and replace with -- p. --.

Line 31, after "Kornfeld" add -- , --.

Line 32, delete "Wigzell Proc," and replace with -- Wigzell, Proc. --.

Line 33, after "et al." add -- , --.

Line 42, delete "IgG<sub>1</sub>-IgG<sub>2a</sub>" and replace with -- IgG<sub>1</sub>-IgG<sub>2a</sub> --.

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 5,807,715  
DATED : September 15, 1998  
INVENTOR(S) : S.L. Morrison, Herzenberg, L.A. and Oi, V.T.

Page 3 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 12 cont'd.

Line 64, delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --; delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --.

Line 65, delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --; delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --.

Column 13.

Line 4, delete "T<sub>4</sub>" and replace with -- T<sub>4</sub> --.

Line 43, after "Gilbert" add -- , --.

Line 65, delete "Dangi" and replace with -- Dangi --

Column 14.

Line 24, delete "bateria" and replace with -- bacteria --.

Line 41, delete "C." and replace with -- C --.

Line 53, delete "labelled" and replace with -- labeled --.

Column 15.

Line 5, delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --; delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --.

Line 25, delete "pHGX1C<sub>γ2a</sub>B" and replace with -- pHGX1C<sub>γ1</sub>B --.

Line 27, delete "Trp<sup>+</sup>" and replace with -- TRP<sup>+</sup> --.

Line 39, delete "Trp<sup>+</sup>" and replace with -- TRP<sup>+</sup> --.

Line 44, delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --.

Line 45, delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --

Line 46, delete "-7" and replace with -- <sup>-7</sup> --.

Line 49, delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --

Line 50, delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --.

Column 16.

Line 2, delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --.

Line 3, delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --.

Line 18, delete "Mr" and replace with -- M<sub>r</sub> --.

Line 29, delete "are" and replace with -- is --; delete "IgG<sub>1</sub>" and replace with -- IgG<sub>1</sub> --.

Line 30, delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --.

Line 44, delete "IgG<sub>2a</sub>" and replace with -- IgG<sub>2a</sub> --.

Column 17.

Line 63, delete "P<sub>3</sub>" and replace with -- P<sub>3</sub> --.

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 5,807,715  
DATED : September 15, 1998  
INVENTOR(S) : S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

Page 4 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 18,

Line 57, delete "P<sub>3</sub>" and replace with -- P3 --.

Column 19,

Line 33, delete "P<sub>3</sub>" and replace with -- P3 --.

Column 20,

Line 50, delete "39" and replace with -- 37 --.

Line 52, delete "are".

Line 53, delete "are".

Line 58, delete "are".

Line 59, delete "are".

Column 21,

Line 13, shift line beginning with "express" to left margin.

Line 14, shift line beginning with "specifically" to left margin.

Line 29, delete "arc" and replace with -- are --.

Column 22,

Line 43, delete "arc" and replace with -- are --.

Signed and Sealed this

Ninth Day of July, 2002

Attest:

A handwritten signature in black ink, appearing to read "James E. Rogan", with a horizontal line drawn underneath it.

Attesting Officer

JAMES E. ROGAN  
Director of the United States Patent and Trademark Office



COFC

9210  
#69  
*[Signature]*

UNITED STATES PATENT AND TRADEMARK OFFICE

Patentees : Sherie L. Morrison  
Leonard A. Herzenberg  
Vernon T. Oi

Patent No. : 5,807,715

Issued : September 15, 1998

On Application Serial No. : 08/266,154

For : METHODS AND TRANSFORMED MAMMALIAN  
LYMPHOCYTIC CELLS FOR PRODUCING  
FUNCTIONAL ANTIGEN-BINDING PROTEIN  
INCLUDING CHIMERIC IMMUNOGLOBULIN  
AND FRAGMENTS

Group Art Unit : 1642

Examiner : Julie E. Reeves, Ph.D.

Hon. Asst. Commissioner for Patents  
Attn: Certificate of Correction Branch  
Washington, D.C. 20231

APPROVED  
JUN 19 2002 *[Signature]*  
FOR THE DIRECTOR OF USPTO

RECEIVED  
JUL - 8 1999  
CERTIFICATE OF CORRECTION

REQUEST UNDER 37 C.F.R. § 1.322 AND § 1.323  
FOR ISSUANCE OF CORRECTED COPY OF PATENT

Sir:

Enclosed are 8 sheets (in duplicate) of Form PTO-1050 listing corrected printing errors that have been found in the above-identified patent. None of the corrections add new matter.

Two of the listed errors, believed to be the responsibility of the Patent and Trademark Office, are of such import that the patentees and their assignees respectfully request that in lieu of a certificate of correction, the Patent and Trademark Office issue a corrected original ribbon grant of the patent, and a corrected electronic copy of the patent.

07/01/1999 5800651 00000156 5807715  
01 FC:145  
02 FC:585  
100.00 DP  
45.00 DP

First, one assignee, The Trustees of Columbia University, New York, New York was omitted. Both assignees, The Board of Trustees of The Leland Stanford Junior University and The Trustees of Columbia University, were listed in Part B-Issue Fee Transmittal (and attached sheet), copies of which are attached as Exhibit A. Also attached, as Exhibit B, is the Notice of Recordation of Assignment Document listing Columbia University as an assignee.

Second, the title as printed on the issued patent is in error. The correct title is:

METHODS AND TRANSFORMED MAMMALIAN LYMPHOCYTIC  
CELLS FOR PRODUCING FUNCTIONAL ANTIGEN-BINDING  
PROTEIN INCLUDING CHIMERIC IMMUNOGLOBULIN AND  
FRAGMENTS,

as amended in the Second Amendment After Allowance Pursuant to 37 C.F.R. § 1.312(a), filed May 18, 1998, and entered by the Examiner on May 22, 1998. Copies of the Amendment and the Examiner's Response to Rule 312 Communication are attached as Exhibit C and D, respectively.

The two errors described above are those that motivate the present request for issuance of a new patent. Form PTO-1050 lists additional corrections, most of which report clear typographical errors. However, two corrections are requested in the claims, meriting additional discussion.

First, claim 41, as corrected, would depend from claim 37, rather than claim 39. Applicants believe that this correction is necessitated by incorrect renumbering by the Patent and Trademark Office of amended claim 136, filed in the Second Amendment After Allowance.

Second, the requested deletion of two separate uses of the word "are" in each of claims 41 and 42 corrects grammatical difficulties present in the claims as issued,



#67  
EJ

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patentees : Sherie L. Morrison  
Leonard A. Herzenberg  
Vernon T. Oi

Patent No. : 5,807,715

Issued : September 15, 1998

On Application  
Serial No. : 08/266,154

For : METHODS AND TRANSFORMED MAMMALIAN  
LYMPHOCYTIC CELLS FOR PRODUCING  
FUNCTIONAL ANTIGEN-BINDING PROTEIN  
INCLUDING CHIMERIC IMMUNOGLOBULIN  
AND FRAGMENTS

Group Art Unit : 1642

Examiner : Julie E. Reeves, Ph.D.

Hon. Asst. Commissioner for Patents  
Attn: Certificate of Correction Branch  
Washington, D.C. 20231

REQUEST UNDER 37 C.F.R. § 1.322 AND § 1.323  
FOR ISSUANCE OF CORRECTED COPY OF PATENT

Sir:

Enclosed are 8 sheets (in duplicate) of Form PTO-1050 listing corrected printing errors that have been found in the above-identified patent. None of the corrections add new matter.

Two of the listed errors, believed to be the responsibility of the Patent and Trademark Office, are of such import that the patentees and their assignees respectfully request that in lieu of a certificate of correction, the Patent and Trademark Office issue a corrected original ribbon grant of the patent, and a corrected electronic copy of the patent.

43799230 43799230 43799230

First, one assignee, The Trustees of Columbia University, New York, New York was omitted. Both assignees, The Board of Trustees of The Leland Stanford Junior University and The Trustees of Columbia University, were listed in Part B-Issue Fee Transmittal (and attached sheet), copies of which are attached as Exhibit A. Also attached, as Exhibit B, is the Notice of Recordation of Assignment Document listing Columbia University as an assignee.

Second, the title as printed on the issued patent is in error. The correct title is:

METHODS AND TRANSFORMED MAMMALIAN LYMPHOCYTIC  
CELLS FOR PRODUCING FUNCTIONAL ANTIGEN-BINDING  
PROTEIN INCLUDING CHIMERIC IMMUNOGLOBULIN AND  
FRAGMENTS,

as amended in the Second Amendment After Allowance Pursuant to 37 C.F.R. § 1.312(a), filed May 18, 1998, and entered by the Examiner on May 22, 1998. Copies of the Amendment and the Examiner's Response to Rule 312 Communication are attached as Exhibit C and D, respectively.

The two errors described above are those that motivate the present request for issuance of a new patent. Form PTO-1050 lists additional corrections, most of which report clear typographical errors. However, two corrections are requested in the claims, meriting additional discussion.

First, claim 41, as corrected, would depend from claim 37, rather than claim 39. Applicants believe that this correction is necessitated by incorrect renumbering by the Patent and Trademark Office of amended claim 136, filed in the Second Amendment After Allowance.

Second, the requested deletion of two separate uses of the word "are" in each of claims 41 and 42 corrects grammatical difficulties present in the claims as issued,



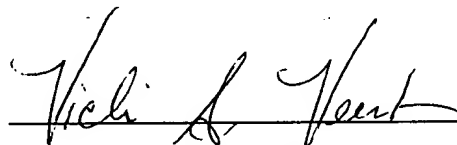
and does not add new matter or change the scope of the claims.

Some of the corrected errors were made by the applicants. Accordingly, enclosed herewith is a check for \$100.00 in payment of the fee set forth in 37 C.F.R. § 1.20(a). We also request 15 printed copies of the patent, if the corrected patent is issued; a check in the amount of \$45.00 to cover the cost of the copies is enclosed. The Commissioner is hereby authorized to charge any additional fees due, or credit any overpayment, in connection with these respective Requests to Deposit Account No. 06-1075. A duplicate copy of this Request for Issuance of Corrected Copy of Patent is enclosed herewith.

If any questions arise from the foregoing, the Applicants invite an inquiry to the undersigned by telephone at (650) 617-4011.

Respectfully submitted,

Dated: June 25, 1999

  
Vicki S. Veenker  
Registration No. 34,269  
Attorney for Patentees

c/o FISH & NEAVE  
1251 Avenue of the Americas  
New York, New York 10020  
(650) 617-4000

Attachments:

I hereby Certify that this Correspondence is being Deposited with the U.S. Postal Service as First Class Mail in an Envelope Addressed to: ASSISTANT COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231, ON

- Exhibit A  
Part B-Issue Fee Transmittal, Form PTOL-85B, and attached sheet, applic. ser. no. 08/266,154
- Exhibit B  
Notice of Recordation of Assignment Document, applic. ser. no. 07/090,669

June 25, 1999

MARTHA D. JOHNSON

  
Signature of Person Signing

Attachments (cont.):

- Exhibit C  
Pages 1 - 8 of Second Amendment After Allowance,  
May 18, 1998, applic. ser. no. 08/266,154
- Exhibit D  
Response to Rule 312 Communication entering Second  
Amendment After Allowance, applic. ser.  
no.08/266,154

Enclosures:

- PTO-1050 (8 sheets, in duplicate)
- Check in the amount of \$100.00, for providing a  
certificate of correction under 37 C.F.R. § 1.323.
- Check in the amount of \$45.00, to cover the fee  
for 15 printed copies of the corrected patent.

44-38861-10000

Additional Assignee Name and Residence Data to be Printed on the Patent

(A) Name of Assignee    The Trustees of Columbia University

(B) Residence: (City & State or Country)  
New York, New York

☐ Individual            ☒ Corporation or other private group entity            ☐ Government

462299-454928

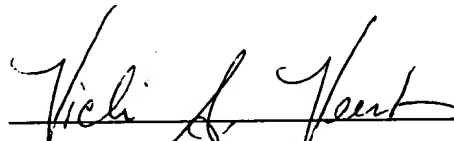
and does not add new matter or change the scope of the claims.

Some of the corrected errors were made by the applicants. Accordingly, enclosed herewith is a check for \$100.00 in payment of the fee set forth in 37 C.F.R. § 1.20(a). We also request 15 printed copies of the patent, if the corrected patent is issued; a check in the amount of \$45.00 to cover the cost of the copies is enclosed. The Commissioner is hereby authorized to charge any additional fees due, or credit any overpayment, in connection with these respective Requests to Deposit Account No. 06-1075. A duplicate copy of this Request for Issuance of Corrected Copy of Patent is enclosed herewith.

If any questions arise from the foregoing, the Applicants invite an inquiry to the undersigned by telephone at (650) 617-4011.

Respectfully submitted,

Dated: June 25, 1999

  
Vicki S. Veenker  
Registration No. 34,269  
Attorney for Patentees

c/o FISH & NEAVE  
1251 Avenue of the Americas  
New York, New York 10020  
(650) 617-4000


Attachments:

I hereby Certify that this  
Correspondence is being  
Deposited with the U.S.  
Postal Service as First  
Class Mail in an Envelope  
Addressed to: ASSISTANT  
COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231, ON

- Exhibit A  
Part B-Issue Fee Transmittal, Form PTOL-85B, and  
attached sheet, applic. ser. no. 08/266,154
- Exhibit B  
Notice of Recordation of Assignment Document,  
applic. ser. no. 07/090,669

June 25, 1999

MARTHA D. JOHNSON

  
Signature of Person Signing

Attachments (cont.):

- Exhibit C  
Pages 1 - 8 of Second Amendment After Allowance,  
May 18, 1998, applic. ser. no. 08/266,154
- Exhibit D  
Response to Rule 312 Communication entering Second  
Amendment After Allowance, applic. ser.  
no.08/266,154

Enclosures:

- PTO-1050 (8 sheets, in duplicate)
- Check in the amount of \$100.00, for providing a  
certificate of correction under 37 C.F.R. § 1.323.
- Check in the amount of \$45.00, to cover the fee  
for 15 printed copies of the corrected patent.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

In the Title [54], delete "LYMPHOCYTE" and replace with LYMPHOCYTIC--; after "IMMUNOGLOBULIN", add --AND FRAGMENTS--

In the Inventors [75], delete "Scarsdale, N.Y." and replace with --Los Angeles--; delete "Menlo Park" and replace with --Mountain View--; delete "both" and replace with --all--.

In the Assignee [73], delete "Assignee" and replace with --Assignees--; after "Calif.", add --, and The Trustees of Columbia University, New York, N.Y.--.

In References Cited [56], after "Seno et al 1983 Nucleic", delete "Acid" and replace with --Acids--; after "Research 11(3)", delete ";" and replace with --:--.

In References Cited [56], after "Dolby et al 1980 PNAS... 77(10)" add --:--.

Column 1, line 2, delete "LYMPHOCYTE" and replace with --LYMPHOCYTIC--.

Column 1, line 5, after "IMMUNOGLOBULIN" add --AND FRAGMENTS--.

Column 1, line 16, add the paragraph --The work described herein was supported in part by grants from the National Institutes of Health (NIH), including AI-00408, AI-08917, CA-04681, and CA-16858. The United States Government has certain rights in the invention.--

Column 1, line 19, delete "1."

MAILING ADDRESS OF SENDER: Fish & Neave  
1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 1, line 41, delete "2."

Column 1, line 61, after "functional", add --,--; after "assembled", add --,--.

Column 1, line 66, delete "mouse-" and replace with --mouse:--

Column 1, line 67, delete ":".

Column 3, line 26, delete "prepar" and replace with --prepara--.

Column 3, line 32, delete "CDNA" and replace with --cDNA--.

Column 4, line 45, delete "CDNA" and replace with --cDNA--.

Column 4, line 52, delete "CDNA" and replace with --cDNA--.

Column 4, line 59, delete "CDNA" and replace with --cDNA--.

Column 4, line 65, delete "Joining" and replace with --joining--.

Column 8, line 2, after "immunization", add --,--.

Column 8, line 21, delete "VH" and replace with --V<sub>H</sub>--.

Column 8, line 22, delete "V<sub>κ</sub>" and replace with --V<sub>κ</sub>--  
(Greek letter kappa subscripted).

MAILING ADDRESS OF SENDER: Fish & Neave  
1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 8, line 24, delete "VH" and replace with --V<sub>H</sub>--.

Column 8, line 29, delete "Vk" and replace with --V<sub>κ</sub>--  
(Greek letter kappa subscripted).

Column 8, line 31, delete "Jk" and replace with --J<sub>κ</sub>--  
(Greek letter kappa subscripted); delete "Ck" and replace with --  
C<sub>κ</sub>-- (Greek letter kappa subscripted).

Column 9, line 9, delete "Five" and replace with --Fine--;  
delete "Chamicals" and replace with --Chemicals--.

Column 9, line 19, delete "VH-VL" and replace with --V<sub>H</sub>-V<sub>L</sub>--.

Column 9, line 57, delete "H2L2" and replace with --H<sub>2</sub>L<sub>2</sub>--.

Column 9, line 67, delete "K" and replace with --κ--; delete  
"antiodies" and replace with --antibodies--.

Column 10, line 5, after "expected" add --,--.

Column 10, line 10, delete "VH" and replace with --V<sub>H</sub>--;  
delete "Vk" and replace with --V<sub>κ</sub>-- (Greek letter kappa  
subscripted).

Column 10, line 14, delete "mouse: human" and replace with --  
mouse:human--.

Column 10, line 22, delete "VH" and replace with --V<sub>H</sub>--;  
delete "Vk" and replace with --V<sub>κ</sub>-- (Greek letter kappa  
subscripted).

MAILING ADDRESS OF SENDER: Fish & Neave

1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies





Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 10, line 36, delete "Mr" and replace with --M<sub>r</sub>--.

Column 10, line 42, delete "Mr" and replace with --M<sub>r</sub>--.

Column 10, line 54, delete "hybri-doma-" and replace with --hybridoma--.

Column 11, line 5, delete "V<sub>k</sub>" and replace with --V<sub>κ</sub>--  
(Greek letter kappa subscripted).

Column 11, line 10, delete "mouse: human" and replace with --mouse:human--.

Column 11, line 21, delete "use" and replace with --used--.

Column 11, line 35, delete "IgG<sub>1</sub>, IgG<sub>2</sub>, IgG<sub>3</sub>, IgG<sub>4</sub>, rabbit IgG and mouse IgG<sub>3</sub>" and replace with --IgG<sub>1</sub>, IgG<sub>2</sub>, IgG<sub>3</sub>, IgG<sub>4</sub>, rabbit IgG and mouse IgG<sub>3</sub>--.

Column 11, line 37, delete "(delta)" and replace with --Δ--  
(Greek letter capital delta).

Column 11, line 41, delete "V<sub>k</sub>" and replace with --V<sub>κ</sub>--  
(Greek letter kappa subscripted).

Column 11, line 43, after "Ann" add --.---.

Column 11, line 44, delete "V<sub>k</sub>" and replace with --V<sub>κ</sub>--  
(Greek letter kappa subscripted).

MAILING ADDRESS OF SENDER: Fish &amp; Neave

1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 11, line 60, delete "pure, >95%" and replace with --pure (>95%)--.

Column 11, line 63, delete "mouse-human" and replace with --mouse:human--.

Column 11, line 64, delete "IgG<sub>3</sub>" and replace with --IgG3--.

Column 12, line 3, delete "IgG<sub>1</sub>" and replace with --IgG1--.

Column 12, line 10, delete "affinity purified" and replace with --affinity-purified--.

Column 12, line 22, delete "labelling" and replace with --labeling--.

Column 12, line 26, delete "pp." and replace with --p.--.

Column 12, line 31, after "Kornfeld" add --,--.

Column 12, line 32, delete "Wigzell Proc," and replace with --Wigzell, Proc.--.

Column 12, line 33, after "et al." add --,--.

Column 12, line 42, delete "IgG<sub>1</sub>-IgG<sub>2a</sub>" and replace with --IgG1-IgG2a--.

Column 12, line 64, delete "IgG<sub>1</sub>" and replace with --IgG1--; delete "IgG<sub>2a</sub>" and replace with --IgG2a--.

MAILING ADDRESS OF SENDER: Fish & Neave  
1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 12, line 65, delete "IgG<sub>2a</sub>" and replace with --IgG<sub>2a</sub>--; delete "IgG<sub>1</sub>" and replace with --IgG<sub>1</sub>--.

Column 13, line 4, delete "T<sub>4</sub>" and replace with --T<sub>4</sub>--.

Column 13, line 43, after "Gilbert" add --,--.

Column 13, line 65, delete "Dangi" and replace with --Dangl--.

Column 14, line 24, delete "bateria" and replace with --bacteria--.

Column 14, line 41, delete "C." and replace with --C--.

Column 14, line 53, delete "labelled" and replace with --labeled--.

Column 15, line 5, delete "IgG<sub>1</sub>" and replace with --IgG<sub>1</sub>--; delete "IgG<sub>2a</sub>" and replace with --IgG<sub>2a</sub>--.

Column 15, line 25, delete "pHGX1C<sub>2</sub>aB" and replace with --pHGX1C<sub>1</sub>B--.

Column 15, line 27, delete "Trp<sup>+</sup>" and replace with --TRP<sup>+</sup>--.

Column 15, line 39, delete "Trp<sup>+</sup>" and replace with --TRP<sup>+</sup>--.

Column 15, line 44, delete "IgG<sub>1</sub>" and replace with --IgG<sub>1</sub>--.

MAILING ADDRESS OF SENDER: Fish & Neave

1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 15, line 45, delete "IgG<sub>2a</sub>" and replace with --IgG2a--

Column 15, line 49, delete "IgG<sub>2a</sub>" and replace with --IgG2a--

Column 15, line 50, delete "IgG<sub>1</sub>" and replace with --IgG1--.

Column 15, line 46, delete "-7" and replace with --7--.

Column 16, line 2, delete "IgG<sub>1</sub>" and replace with --IgG1--.

Column 16, line 3, delete "IgG<sub>2a</sub>" and replace with --IgG2a--.

Column 16, line 18, delete "Mr" and replace with --M<sub>r</sub>--.

Column 16, line 29, delete "are" and replace with --is--;  
delete "IgG<sub>1</sub>" and replace with --IgG1--.

Column 16, line 30, delete "IgG<sub>2a</sub>" and replace with --IgG2a--

Column 16, line 44, delete "IgG<sub>2a</sub>" and replace with --IgG2a--

Column 17, line 63 (claim 7), delete "P<sub>3</sub>" and replace with --  
P3--.

Column 18, line 57 (claim 17), delete "P<sub>3</sub>" and replace with -  
-P3--.

MAILING ADDRESS OF SENDER: Fish & Neave  
1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies



(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,807,715

DATED : September 15, 1998

INVENTOR(S): S.L. Morrison, Herzenberg, L.A., and Oi, V.T.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 19, line 33 (claim 27), delete "P<sub>3</sub>" and replace with -P3--.

Column 20, line 50 (claim 41), delete "39" and replace with -37--.

Column 20, line 52 (claim 41), delete "are".

Column 20, line 53 (claim 41), delete "are".

Column 20, line 58 (claim 42), delete "are".

Column 20, line 59 (claim 42), delete "are".

Column 21, line 13, shift line beginning with "express" to left margin.

Column 21, line 14, shift line beginning with "specifically" to left margin.

Column 21, line 29 (claim 48), delete "arc" and replace with --are--.

Column 22, line 43 (claim 59), delete "arc" and replace with --are--.

MAILING ADDRESS OF SENDER: Fish & Neave  
1251 Avenue of the Americas  
New York, NY 10020

PATENT NO. 5,807,715

No. of additional copies

